Appl. No. To be assigned; Group Art Unit: To be assigned Dkt. No. 1488.0440003/EKS/PSC; Inventors: Olsen et al.; Tel: 202/371-2600
Title: Human Oncogene Induced Secreted Protein I

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TTTTCCCAGCTGCAGTGGAGGCGGCGGTGGGAAAGCCTGGCCCACACACGTGGTCTGT	uI7 I
PheProSerCysSerGlyGlyGlyGlyGlyLysAlaTrpProThrHisValValCys F P S C S G G G G K A W P T H V V C CGACAGCGGCTTGGAAGTGCTCTACCAGAGTTGCGATCCATTACAAGATTTTGGCTTT	
rAspSerGlyLeuGluValLeuTyrGlnSerCysAspProLeuGlnAspPheGlyPhe D S G L E V L Y Q S C D P L Q D F G F TGTTGAAAAGTGTTCCAAGCAATTAAAATCAAATATCAACATTAGATTTGGAATTATT	
rAspSerGlyLeuGluValLeuTyrGlnSerCysAspProLeuGlnAspPheGlyPhe D S G L E V L Y Q S C D P L Q D F G F TGTTGAAAAGTGTTCCAAGCAATTAAAATCAAATATCAACATTAGATTTGGAATTATTTTTTTT	
rValGluLysCysSerLysGlnLeuLysSerAsnIleAsnIleArgPheGlyIleIle V E K C S K Q L K S N I N I R F G I I GAGAGAGGACATCAAAGAGCTTTTTCTTGACCTAGCTCTCATGTCTCAAGGCTCATCT uArgGluAspIleLysGluLeuPheLeuAspLeuAlaLeuMetSerGlnGlySerSer R E D I K E L F L D L A L M S Q G S S TTTGAATTTCTCCCTATCCCATCTGTGAGGCGGCTCTGCCCAAGTTTTCTTCTGTGGA lLeuAsnPheSerTyrProlleCysGluAlaAlaLeuProLysPheSerPheCysGly L N F S Y P I C E A A L P K F S F C G AAGGAAAGGAGAGAGAGTTTACTATGCTGGGCCTGTCAATAATCCTGAATTTACTATT gArgLysGlyGluGlnIleTyrTyrAlaGlyProValAsnAsnProGluPheThrIle R K G E Q I Y Y A G P V N N P E F T I TCAGGGAGAATACCAGGTTTTGCTGGAACTGTACACTGAAAAACGGTCCACCGTGGCC oGlnGlyGluTyrGlnValLeuLeuGluLeuTyrThrGluLysArgSerThrValAla Q G E Y Q V L L E L Y T E K R S T V A TGCCAATGCTACTATCATGTGCTCCTGACTGTGGCCTGTAGCAAAAATCACAGCCAGC	eSe
rValGluLysCysSerLysGlnLeuLysSerAsnIleAsnIleArgPheGlyIleIle V E K C S K Q L K S N I N I R F G I I GAGAGAGGACATCAAAGAGCTTTTTCTTGACCTAGCTCTCATGTCTCAAGGCTCATCT	TĊŢ
uArgGluAspIleLysGluLeuPheLeuAspLeuAlaLeuMetSerGlnGlySerSer R E D I K E L F L D L A L M S Q G S S ITTGAATTTCTCCTATCCCATCTGTGAGGCGGCTCTGCCCAAGTTTTCTTTC	
uArgGluAspIleLysGluLeuPheLeuAspLeuAlaLeuMetSerGlnGlySerSer R E D I K E L F L D L A L M S Q G S S TTTGAATTTCTCCTATCCCATCTGTGAGGCGGCTCTGCCCAAGTTTTCTTTC	
ILEUASNPHESERTYRPROITECYSGTUATAATAATCCTGAATTTACTATT AAGGAAAGGAGAGCAGATTTACTATGCTGGGCCTGTCAATAATCCTGAATTTACTATT GARGLYSGTYGTUGTNITETYRTYRATAGTYRPROVATASNASNPROGTUPHETHRITE R K G E Q I Y Y A G P V N N P E F T I TCAGGGAGAATACCAGGTTTTGCTGGAACTGTACACTGAAAAACGGTCCACCGTGGCC OGINGTYGTUTYRGTNVATLEULEUGTULEUTYRTHRGTULYSARGSERTHRVATATA Q G E Y Q V L L E L Y T E K R S T V A TGCCAATGCTACTATCATGTGCTCCTGACTGTGGCCTGTAGCAAAAATCACAGCCAGC	r٧a
L N F S Y P I C E A A L P K F S F C G AAGGAAAGGAGAGAGATTTACTATGCTGGGCCTGTCAATAATCCTGAATTTACTATT	
gArgLysGlyGluGlnIleTyrTyrAlaGlyProValAsnAsnProGluPheThrIle R K G E Q I Y Y A G P V N N P E F T I TCAGGGAGAATACCAGGTTTTGCTGGAACTGTACACTGAAAAACGGTCCACCGTGGCC	yAr
gArgLysGlyGluGlnIleTyrTyrAlaGlyProValAsnAsnProGluPheThrIle R K G E Q I Y Y A G P V N N P E F T I TCAGGGAGAATACCAGGTTTTGCTGGAACTGTACACTGAAAAACGGTCCACCGTGGCC	
oGlnGlyGluTyrGlnValLeuLeuGluLeuTyrThrGluLysArgSerThrValAla Q G E Y Q V L L E L Y T E K R S T V A TGCCAATGCTACTATCATGTGCTCCTGACTGTGGCCTGTAGCAAAAATCACAGCCAGC	
oGlnGlyGluTyrGlnValLeuLeuGluLeuTyrThrGluLysArgSerThrValAla Q G E Y Q V L L E L Y T E K R S T V A TGCCAATGCTACTATCATGTGCTCCTGACTGTGGCCTGTAGCAAAAATCACAGCCAGC	
sAlaAsnAlaThrIleMetCysSerEnd	aCy
sAlaAsnAlaThrIleMetCysSerEnd	
CATCTCGTGGGACCTCCAAGCTCCTCTGACTGAACCTACTGTGGGAGGAGAAGCAGCT	

FIG.1A

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601	TGACAGAGAGAGGCTCTACAAAGAAGCGCCCCCAAAGAGTGCAGCTGCTAATTTTAGTCC	660
661	CAGGACCAGACTCCCCAGACTCCACAGATGTAATGAAGTCCCCGAATGTATCTGTTTCT	720
721	AAGGAGCCTCTTGGCAGTCCTTAAGCAGTCTTGAGGGTCCATCCTTTTTCTCTAATTGGT	780
781	CGCCTCCCACCAGACTCACCTGCTTTTCAACTTTTTAGGAGTGCTTCCTCACAGTTACCA	840
841	AGAAATAAAGAAAGCTGGCC	

Nucleotide sequence of Human MD-1 Homolog. Corresponding deduced amino-acid sequence shown below using standard three and one letter abbreviation.

FIG.1B

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Score = 344 (160.0 bits), Expect = 6.6e-44, P = 6.6e-44 Identities = 60/133 (45%), Positives = 86/133 (64%)

Query: 27 WPTHVVCSDSGLEVLYQSCDPLQDFGFSVEKCSKQLKSNINIRFGIILREDIKELFLDLA 86 WPTH VC + LE+ Y+SCDP ODF FS+++CS +IR ++LR+ IKEL+ +

WPTH VC + LE+ Y+SCDP QDF FS+++CS +IR ++LR+ IKEL+ +
Sbjct: 22 WPTHTVCKEENLEIYYKSCDPQQDFAFSIDRCSDVTTHTFDIRAAMVLRQSIKELYAKVD 81

Query: 87 LMSQGSSVLNFSYPICEAALPKFSFCGRRKGEQIYYAGPVNNPEFTIPQGEYQVLLKLYT 146 L+ G +VL++S +C L K FCG++KGE +YY GP+ IPQG+Y + L

Sbjct: 62 LIINGKTVLSYSETLCGPGLSKLIFCGKKKGEHLYYEGPITLGIKEIPQGDYTITARLTN 141

Query: 147 EKRSTVACANATI 159

E R+TVACA+ T+

Sbjct: 142 EDRATVACADFTV 154

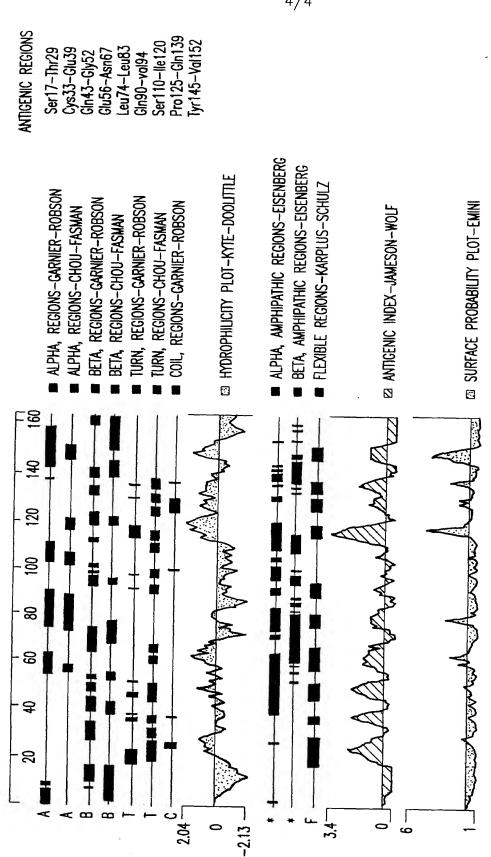
Sequence comparison between human MD-1 protein (upper line) and MD-1 protein from chicken (lower line).

FIG.2

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Title: Human Oncogene Induced Secreted Protein I

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F.

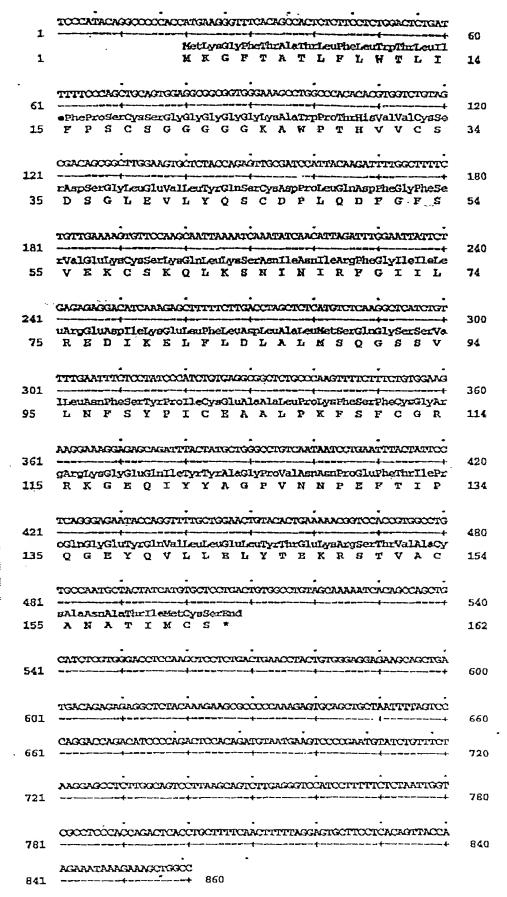


Figure 1. Nucleotide sequence of Human ND-1 Homolog. Corresponding deduced emino-acid sequence shown below using standard three and one letter abbreviation.

Score = 344 (160.0 bits), Expect = 6.6e-44, P = 6.6e-44 Identities = 60/133 (45%), Positives = 86/133 (64%)

27 WPTHYVCSD3GLEVLYQSCDPLQDFGFSVEKCSKQLKENINIRFGITLREDIKELFLDLA 86 Query

WPIH VC + LE+ Y+SCOP QDF FS+++CS +IR ++LR+ IKEL+ +

Sbjct: 22 WPTHIVCKEENLELYYKSCIPQQDPAFSIDECSDVTTHIFDIRAAMVIEQSIKELYAKVD 81

Queryi 87 LMSQGSSVLNFSYPICEANLFKFEFCGRRKGEQTYYAGPVNNPEFTIPQGEYQVIJRLYT 146

IH 0 +VLH+5 +C L K FOGH-KGE +YY GPH IPOCHY + L 82 LILIXENTVLEYSETLGGEGLEKLIFCKEKKGEHLYYEGPITLGIKELYGDYTITAHUN 141 Sbjct:

Onerry: 147 EKRSTVACANATI 159

E RHIVACA+ T+

142 EDRATVACADETV 154 Sbjct:

Figure 2. Sequence comparison between human MD-1 protein (upper line) and MD-1 protein from chicken (lower line).

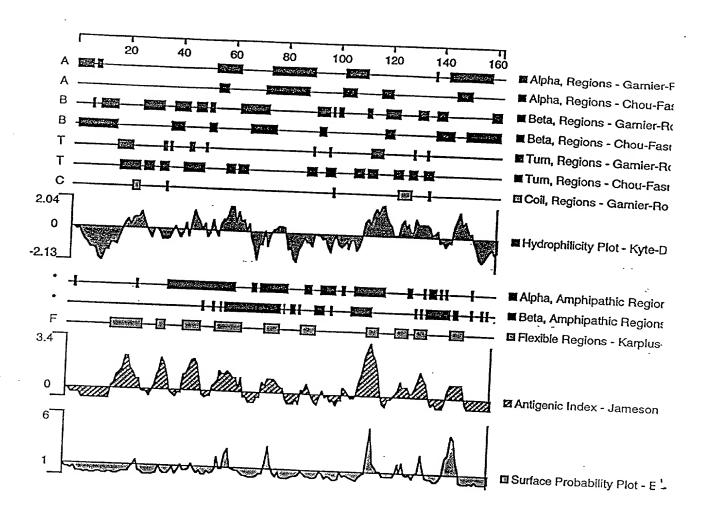


Figure 3. Analysis of the full length predicted amino acid sequence.

Tyr145-Val152

Antigenic regions

Ser17- Thr29

Cys33-Glu39

Gln43-Gly52

Glu56-Asn67

Leu74-Leu83

Gln90-val94

Ser110-Ile120

Pro125-Gln139